

Memorandum

TO: HONORABLE MAYOR AND
CITY COUNCIL

FROM: Hans F. Larsen
Jennifer A. Maguire

**SUBJECT: REPLACEMENT OF
STREETLIGHT COPPER WIRE**

DATE: November 25, 2013

Approved

Date

12/4/13

RECOMMENDATION

Adopt the following Appropriation Ordinance amendments in the Construction Excise Tax Fund to allow for additional replacement of streetlight copper wire:

- (1) Increase the appropriation to the Department of Transportation for Copper Wire Replacement in the amount of \$500,000; and
- (2) Decrease the Ending Fund Balance by \$500,000.

OUTCOME

Through these budgetary adjustments, the City will be better able to address the dramatic increase in streetlight outages due to copper wire theft and improve repair timeframes.

BACKGROUND

The City has an extensive streetlight system of approximately 63,000 lights. With the rising incidence of wire theft and an aging streetlight system, repair timeframes in 2013-2014 have increased, reducing the number repaired within 14 days from 70% to 50%. As of November 15, 2013, there are 2,182 streetlight outages representing about 3.5% of all streetlights. Although most outages are caused by burned out bulbs, the majority of the existing backlog of outages is due to wire theft and electrical malfunctions. Repairing these complex outages requires significantly more resources and time, and the expertise of an electrician. As a result of the volume of complex outages, and the limited availability of electrical resources, there is a need to queue repairs, currently resulting in extended repair timeframes of four to six months.

With the end of daylight savings time, the City has entered the period of the year when requests to repair streetlight outages are at their peak. Throughout the late fall and winter, with longer nights, Department of Transportation (DOT) typically experiences an increase in repair requests in the 25% range due to heightened public awareness of streetlight outages. The timeframe for all types of repairs typically extends during this time of year because no additional resources have been available to respond to the surge in repair requests. While resources were added to the 2014-2018 Traffic Capital Program to respond to copper wire theft, this funding has not been sufficient to address the need. To avoid further growth and reduce the backlog of outages, DOT is proposing an increased funding allocation to raise repair capacity.

ANALYSIS

As described in the Streetlight Outage Status Report Information Memo sent to the City Council on November 7, 2013, theft of streetlight wire has been a significant problem over the past few years, and it continues to rise. There were 391 new incidents of wire theft in 2012-2013, at an average of 32 per month, which was twice the rate of occurrence in 2011-2012. In the first quarter of 2013-2014, 111 incidents of stolen wire have occurred, at a rate of 37 per month. Current available resources (the equivalent of one repair crew consisting of an Electrician and a Maintenance Worker II) enable the repair of approximately 16 to 20 locations per month, which is causing an increase in the backlog of needed repairs and extending the length of time for repairs.

Currently, there are 268 known locations where the wire has been stolen and the streetlights are out. With no additional resources, response times to repair these new locations are six months to one year. At a repair rate of 20 locations per month per crew, it would take three trained, dedicated crews one year to eliminate the backlog and keep up with new occurrences, if the current incident rate continues. The recommended budget action would increase the Copper Wire Replacement appropriation in the Traffic Capital Program to fund two new crews (two temporary Electricians and two temporary Maintenance Worker II positions) and related equipment/materials expenses. If this level of funding is extended in 2014-2015, staff will be able to eliminate the current backlog, and keep up with the problem. Funding for only two of the crews and related equipment/materials expenses would be needed on an ongoing basis to keep up with new outages at the current rate.

DOT will continue to coordinate with the Police Department on a number of measures to reduce the incidence of stolen wire. To date, there are at least four confirmed cases where arrests have been made. The Police Department continues to explore approaches to deter and enforce against this illegal activity, and DOT staff continues to track the locations of the wire theft incidents to determine if there is any predictable pattern or concentrated areas of occurrence, and has communicated this information to the Police Department.

DOT is also exploring and implementing proactive and corrective deterrents to make it more difficult to access and steal streetlight wire out of pull boxes as resources permit. All streetlight pull boxes that have had wire stolen are sealed with an epoxy treatment to make access to the

wire much more difficult. Locked metal pull box lids installed in areas identified as more prone to theft have proven to be a very effective deterrent. However, with almost 40,000 pull boxes citywide, DOT has had to be extremely targeted in retrofitting pull box lids. They will be installed in future LED streetlight conversion locations with existing resources, and given their effectiveness, a targeted installation in about 20% of the City, where wire theft has been a particular problem, should also be considered for future funding.

EVALUATION AND FOLLOW-UP

Staff will continue to monitor copper wire thefts and work with the Police Department to proactively address the problem. Staff will evaluate a longer-term funding solution to improve streetlight repair timeframes during the development of the 2014-2015 budget.

POLICY ALTERNATIVES

Alternative: City declines to add additional funding to address the increase in streetlight outages.

Pros: The funding resources available in the Construction Excise Tax Fund Ending Fund Balance would be available for other projects in the Traffic Capital Program.

Cons: Should the Council not wish to invest, the number of non-functioning streetlights will increase.

Reason for Not Recommending: There is a significant need to repair non-functioning streetlights due to copper wire theft and, should Council adopt the recommended action, the remaining Ending Fund Balance would still remain at a healthy level.

PUBLIC OUTREACH/INTEREST

- ☐ **Criterion 1:** Requires Council action on the use of public funds equal to \$1 million or greater. **(Required: Website Posting)**
- ☐ **Criterion 2:** Adoption of a new or revised policy that may have implications for public health, safety, quality of life, or financial/economic vitality of the City. **(Required: E-mail and Website Posting)**
- ☐ **Criterion 3:** Consideration of proposed changes to service delivery, programs, staffing that may have impacts to community services and have been identified by staff, Council or a Community group that requires special outreach. **(Required: E-mail, Website Posting, Community Meetings, Notice in appropriate newspapers)**

The recommended actions do not meet any of the above criteria; however, this memorandum will be posted on the City's website for the December 17, 2013 City Council Agenda.

COORDINATION

This memorandum has been coordinated with the City Attorney's Office.

COST SUMMARY/IMPLICATIONS

The recommended budget actions increase the Copper Wire Replacement appropriation in the Construction Excise Tax Fund by \$500,000, thereby providing resources to add 2.0 temporary Electrician and 2.0 temporary Maintenance Worker II through June 30, 2014. As a result, the total number of crews available to repair copper wire theft streetlight outages increases to three. The increase is offset by a reduction to the Ending Fund Balance, which has benefited from other projects completing under budget and higher than anticipated tax revenues received from the construction of private development projects. Primarily as a result of the 2012-2013 Annual Report actions, the Ending Fund Balance was increased by a net \$2.7 million (from \$4.5 million to \$7.2 million) in 2013-2014. This action would use a portion of this additional Ending Fund Balance. Staff will evaluate a longer-term funding solution to improve streetlight repair timeframes during the development of the 2014-2015 budget.

BUDGET REFERENCE

The table below identifies the fund and appropriations recommended to be amended as part of this memorandum.

Fund #	Appn. #	Appn. Name	Current Appn.	Recommended Budget Action	2013-2014 Adopted Capital Budget Page	Last Budget Action (Date, Ord. No.)
465	7391	Copper Wire Replacement	\$250,000	\$500,000	V-859	06/18/2013 Ord. No. 29271
465	8999	Ending Fund Balance	\$7,171,534	-\$500,000	V-810	10/08/2013 Ord. No. 29320


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CEQA

Exempt, File No. PP13-076 - Public project exemption for maintenance of subsurface infrastructure located in the public right of way.

/s/

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Director of Transportation


JENNIFER A. MAGUIRE
Budget Director

For questions please contact Jim Ortbal, Assistant Director, at (408) 535-3845.